# **EXHIBIT 4**



Massachusetts Institute of Technology Department of Mechanical Engineering Nicholas X. Fang Professor

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# **Expert Report of Nicholas Xuanlai Fang, Ph.D.**

Dated: Dec 16, 2019

### Styller, et al. v. Hewlett-Packard Fin. Servs. Co., et al.

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### I. Qualifications

My name is Xuanlai Fang (alias Nicholas). I am a professor of Mechanical Engineering at MIT. I specialize in optics, photonics and micro/nano manufacturing.

I obtained B.S and M.S. degree in Physics from Nanjing University, China, and a Ph.D. in Mechanical Engineering from University of California, Los Angeles. I specialized in nanophotonics and nanofabrication.

From 2004 to 2010, I served as Assistant Professor at the University of Illinois where I taught classes in manufacturing processes, nanomanufacturing, engineering materials and introduction to nanoscience and technology.

From 2011 to present, I served as Associate Professor and then Full Professor (with Tenure) at Massachusetts Institute of Technology. At MIT I taught classes in instrumentation and measurement, optics and photonic materials. I also regularly published academic research in leading journals on nanophotonics and nanomanufacturing. I am an active member of the Optical Society of America (OSA), the Institute of Electrical and Electronics Engineering (IEEE), the American Society of Mechanical Engineers (ASME), and the Materials Research Society. A copy of my CV is attached as Exhibit 1 to this report. A complete list of my publications over past ten years is attached as Exhibit 2 of this report.

I have substantial experience using optical imaging and interferometry instruments for measuring diffractive optical structures and devices for national laboratories and industry collaborators. I have conducted research on a wide range of optical devices and systems such as near-field holographic system for characterization

of metallic nanostructures, and the design of thin metallic film light absorbers using hologram principles.

I have not previously testified as an expert at trial or by deposition.

### II. Assignment

I have been instructed by Plaintiffs' counsel JOFFE LAW P.C. to inspect the H3C trademark holographic logos attached to the subject transceivers to determine whether the logos bear any indicators of counterfeiting described in H3C's security bulletin (Exhibit 3 to this Report) and in H3C's verification report (Exhibit 4 to this Report), and to produce an expert report based on the methodology and the results of my inspection.

I have been compensated for my services in this matter at the rate of \$425 per hour.

I reserve the right to supplement this expert report based on any additional work that I may be asked to do.

### III. Documents and Materials Reviewed

As part of my assignment, I have reviewed the H3C security bulletin explaining the security features of its trademark logos on the transceivers manufactured after May 10, 2010 (in Mandarin, which is my first language).

I have also reviewed a report produced by Defendants stamped DEF0002807-DEF0002817, which I understand Defendants refer to as H3C's verification report of the transceivers seized from Plaintiffs by the Chinese police (also in Mandarin). The H3C security bulletin and the verification report are attached as Exhibits 3 and 4 to this report (with English translations provided by Plaintiffs).

I have also reviewed the complaint filed by Plaintiffs (Case 1:16-cv-10386-LTS, Document 101 filed 08/04/17) for background purposes. I have also reviewed the Court's protective order (Case 1:16-cv-10386-LTS, Document 188 filed 02/07/19) and executed an acknowledgment form attached as an exhibit.

I have also reviewed an excel spreadsheet listing the subject transceivers by their unique serial numbers, and recorded the results of my inspection on that spreadsheet attached as Exhibit 5 to this Report.

I have also reviewed pictures of two holographic H3C logos provided by Plaintiffs attached as Exhibit 6 to this Report.

I have inspected **779** transceivers delivered to me by Plaintiffs and examined **394** holographic H3C trademark logos for the occurrence of the indications of counterfeiting described in H3C's security bulletin and verification report, as explained below.

### IV. Summary of Opinion

My overall opinion is that 343 of the inspected H3C hologram trademark logos affixed to the subject transceivers (87.1% of the 394 logos examined) show **one or more indicators of counterfeiting** described in the H3C security bulletin or in the H3C verification report. I explain the bases for my opinion in the sections below.

## V. Testing methodology

I first reviewed the H3C securities bulletin and the verification report for the indicators of counterfeit H3C holographic logos.

A. The H3C security bulletin. The bulletin describes H3C security holographic labels for its products, including transceivers, used by H3C since May 2010. The bulletin demonstrates the specific optical patterns that should be visible if an

authentic holographic logo is viewed from different angles. The pattern includes four perimeter dots visible in different positions as bright or dark spots if viewed from four different angles, and a vertical bright center dot visible if viewed from the left or right angles (H3C bulletin, page 2 & Figure 2.1).



Figure 1. H3C security bulletin Figure 2.1 illustrating specific optical patterns that should be visible if an authentic holographic logo is viewed from different angles.

The security bulletin also mentions the old version of the logo (with background Chinese characters) that does not contain those security features (H3C bulletin, page 1 and the illustration of the old and new logos):

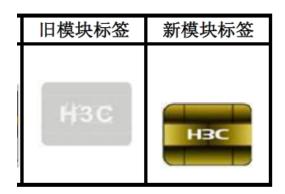


Figure 2. The H3C security bulletin Illustration of the old version of the logo (with Chinese characters) (left panel) and the new version of the logo (right panel).

**B.** The verification report. The verification report demonstrates several indicators of counterfeiting applicable to the H3C holographic logos summarized below.

(1) Logos pasted in the inconsistent positions. The verification report states that the authentic hologram labels are placed at the same location of the devices of same model number in accordance with H3C technical specifications, and the authentic logos cannot be removed and repasted without damaging the logo. Therefore, the wrong position of the labels with respect to the transceiver housing (verification report Figure 6) is regarded as an indicator of counterfeiting. Page DEF0002810. The verification report states that the logo position on the seized transceivers is inconsistent, and logos are irregularly pasted in various positions:

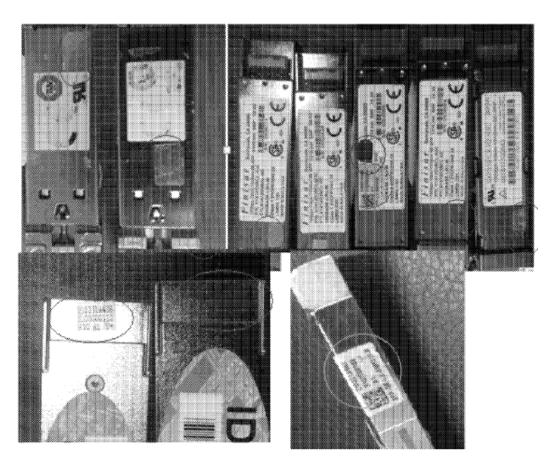


Figure 3. Verification report Figure 6 illustrating inconsistent pasting positions of the labels with respect to the transceiver housing.

(2) "H.3C" logos (with a dot appearing between "H" and "3C") (verification report page DEF0002811 and Figure No. 8):



Figure 4. Verification report Figure 8 illustrating an "H.3C" logo (with a dot appearing between "H" and "3C")

(3) Delamination of the top layer of the logos; (verification report pages DEF0002811-12 and Figure No. 9):

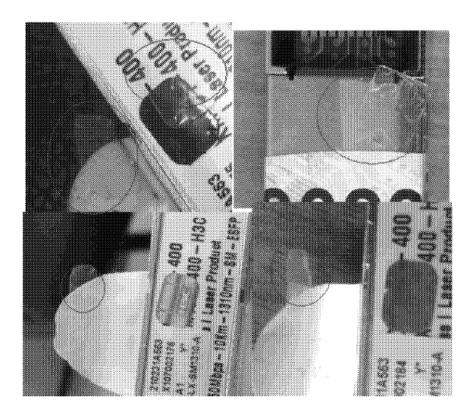


Figure 5. Verification report Figure 9 illustrating delamination of the top layer of the logos and examples of label fly-off.

(4) The off-centered position of the word "H3C" on the logos (verification report pages DEF0002812-13 and Figure No. 10):

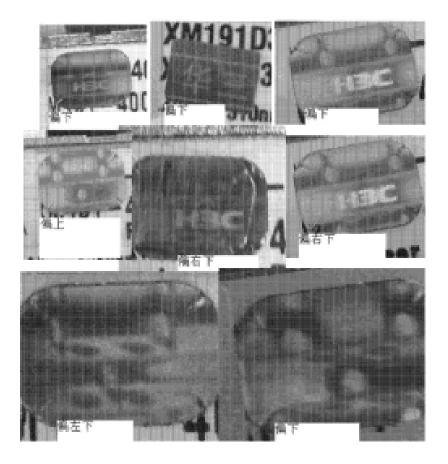


Figure 6. Verification report Figure 10 illustrating the off-centered position of the word "H3C" on the logos.

After reviewing the H3C security bulletin and the verification report for the indicators of counterfeiting, I then inspected the logos of the subject transceivers for the occurrence of these indicators of counterfeiting as follows.

Each transceiver being investigated was affixed to a wedge of fixed inclination angle (27.6° with respect to the horizontal plane) and illuminated by white light from normal incidence (from the digital microscope, 64mm above the logo) and from about 30° with respect to the horizontal plane. The fixed inclination angle of the sample and illumination of light irradiation allows consistent angle of view along the horizontal plan for recording of the reflected hologram pattern. The image of hologram label was recorded using a Celestron digital microscope with 200x magnification by means of the

integrated digital camera in my laboratory at MIT, and the photos were transmitted to a desktop computer. The effect of inclination angle in the optical recording is taken into consideration and the dimensions and relative shift are deducted by using the known width (7mm) and height (5mm) of hologram labels. The position of the word "H3C" with respect to the edges of the 7mm by 5mm label was measured from the photos and the relative shifts with respect to the center were documented. Such measurement procedure is comparable to the methodology taken by the scientific community for measuring visual parameters of a hologram, e.g., Bulygin¹ and A.S. Litvinenko et al.²

<sup>&</sup>lt;sup>1</sup> F. V. Bulygin, "Measurement of the visual parameters of holograms", Measurement Techniques, Vol. 48, No. 6, (2005).

<sup>&</sup>lt;sup>2</sup> A.S. Litvinenko, A.A. Shelekhov, "The device of measurement of parameters of holograms", 6th International Conference on Laser and Fiber-Optical Networks Modeling (2004).

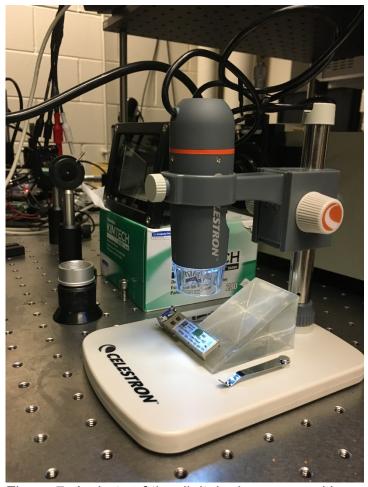


Figure 7. A photo of the digital microscope with an affixed transceiver.

### VI. The Facts and Data Considered

Holographic security labels are reflective holograms that create an optical image. The visible effects of the hologram can be seen by tilting or rotating the image, or by moving its position or the light source. Modern computer-generated holograms are composed of small diffraction grating dots. Each dot is a grating whose period and orientation can be modified (under computer control). Grating dots are formed by two-beam interference on the photosensitive material (producing a sinusoidal profile grating

pattern).<sup>3</sup> Viewers looking at this type of hologram from a certain position will see a mirror like reflection from those pixels which contain a grating whose fringe orientation directs reflected light towards their eye. Pixels which direct light elsewhere appear dark.

The perception of depth in the hologram labels is created by the relative displacement of elements associated with different planes with slight changes in the observation angle. This is tested by placing the hologram at 4 different orientations and record image of the holograms.

The hologram labels, 7mm wide and 5mm tall, of all small and large transceiver devices, were inspected for the occurrence of specific indicators of counterfeiting provided in the H3C bulletin and in the verification report (see Part V above).

According to literature on security labels,<sup>4</sup> the specific, reproducible, and exact alignment of labels on the product is regarded an anti-counterfeiting tool. The H3C verification report states that "the bar code label and anti-counterfeit label attached to the H3C genuine transceiver body have strict technical specifications, and are regularly produced by trained workers on the assembly line. Therefore, the labeling position of the same type transceiver label is consistent." Exhibit 4 (English translation).

### VII. Summary of Findings

My findings with respect to the **779** subject transceivers are documented in the spreadsheet attached as Exhibit 5 to this Report. I summarize and explain those findings below:

<sup>&</sup>lt;sup>3</sup> Chih-Kung Lee, et al, "Optical configuration and color-representation range of a variable-pitch dot matrix holographic printer", Applied Optics, Vol 39(1), pp. 40-53 (2000).

<sup>&</sup>lt;sup>4</sup> Mark Davison, Chapter 18, Security Labels, in *Pharmaceutical Anti-Counterfeiting: Combating the Real Danger from Fake Drugs, published by John Wiley & Sons, Inc,* 2011.

 A total of 235 hologram labels on the transceiver devices received are found completely damaged. A photo illustrating completely damaged labels is provided as Figure 8 below.



Figure 8. Representative photos illustrating completely damaged hologram labels. The summary of damaged holograms can be found in table 1.

These hologram labels were not further investigated for indicators of counterfeiting (except as mentioned in point 3 below).

2. A total of **150** hologram labels on the transceiver devices received are found bearing Chinese logos on the hologram. A photo illustrating these logos is provided as Figure 9 below.



Figure 9. Representative photo illustrating Chinese character logos on hologram labels. The summary of the Chinese logo holograms can be found in table 1.

According to the H3C security bulletin, these holograms with Chinese characters were old logos manufactured prior to 2010. Because the H3C security bulletin and the verification report do not contain any criteria regarding the security features of the old trademark logos, these logos were not further investigated for indicators of counterfeiting (except as mentioned in point 3 below).

3. Although I did not further inspect the completely damaged and the old Chinese hologram logos, I observed inconsistent placing of those logos on the transceiver housing. The predominant position of the logo is on the lower right corner next to the CE Marking Certification label or the QR code label on the majority of the

inspected transceivers. However, a total of **25** inspected devices are found with the damaged or old hologram labels pasted on the lower left corner next of the CE Marking Certification label. The inconsistent pasting of the logo is regarded as an indicator of counterfeiting as noted on the verification report, Figure 6, page number DEF 0002810, reproduced as Figure 3 above.



Figure 10. Photos of representative samples with irregular and inconsistent pasting positions of the completely damaged logos.



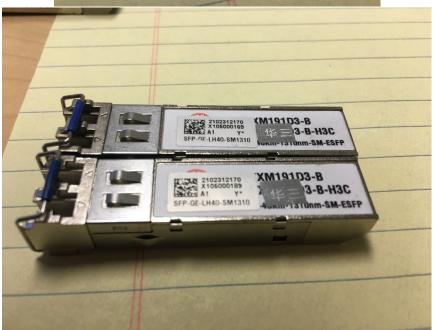


Figure 11 Photos of representative samples showing the predominant position of the logo is on the lower right corner with respect to the CE Marking Certification label or to the right of the QR code label.

The remaining 394 devices with hologram logos were inspected for the occurrence of the indicators of counterfeiting described in Part V above.

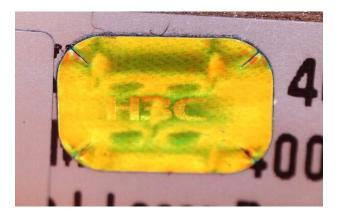
4. The most common indicator of counterfeiting observed in the hologram logos is the off-centered word "H3C" found in a total of **331** hologram logos, or **84.0% of the inspected 394 logos**. These include: 32 labels with the left shift (median 0.58mm); 134 labels with the right shift (median 0.64mm); 20 labels with the up shift (median 0.5mm) and 192 labels with the down shift (median 0.64mm). Certain logos were observed with the word "H3C" shifted in more than one direction (for example, right-shift and down-shift); each such logo was counted as one in the 331 number. The photos illustrating the off-center position of the word "H3C" in the logos are provided as Figure 12 below.



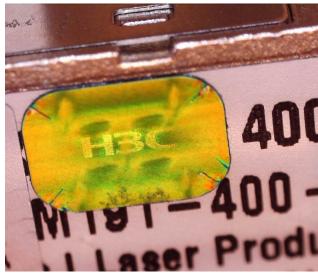
center of "H3C" right-shifts and downshifts



center of "H3C" downshifts



center of "H3C" left-shifts



center of "H3C" up-shifts

Figure 12. Photos of representative samples showing the logo of H3C is not centered in the label.

5. A total of **14** hologram labels inspected (**3.6% of 394 transceivers**) showed signs of delaminated surface protective film (marked as "delamination"). Photos illustrating such delamination of labels is provided in Figure 13 below.

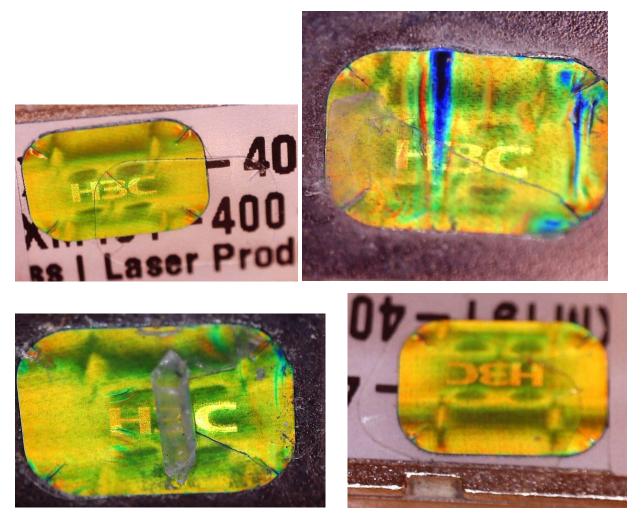


Figure 13. Photos of representative samples of delamination of top protective films.

The verification report also noted holographic logos with "flying off" (completely detached) top layers, as illustrated in Figure 4 above. I observed a number of such detachments as illustrated in Figure 14 below but did not count them separately as an indicator of counterfeiting because my testing methodology did not allow for a reliable quantification of the completely detached top layers.



Figure 14. Photos of representative samples of fly-off of top protective films taken by cell phone camera.

- 6. From the above **394** hologram labels, a total of **47** hologram labels inspected are partially damaged. These labels were measured to record the off-center position of the word "H3C" on the label, but I was not able to take more quantitative assessment with respect to other indicator of counterfeiting specified by H3C's bulletin.
- 7. A total of **54** hologram labels inspected (**13.7%**) do not display clear edge of the array vertical dots when the transceiver is tilted at an angle of 27.6° with respect to the left (marked as "Unclear dots from left angle"). Photos illustrating such logos are provided as Figure 15 below. This is clear distinguished from the optical recordings of the labels showing clear edges of bright vertical dots, when the receiver is tilted at an angle of 27.6° with respect to the right. Photos illustrating such logos pictured with right tilt angles are provided as Figure 16 below. I had to place the samples and the wedge

vertically and take these photos using my cell phone camera because the depth of field of the microscope is insufficient to record the complete label at the specific inclination angle of the sample.

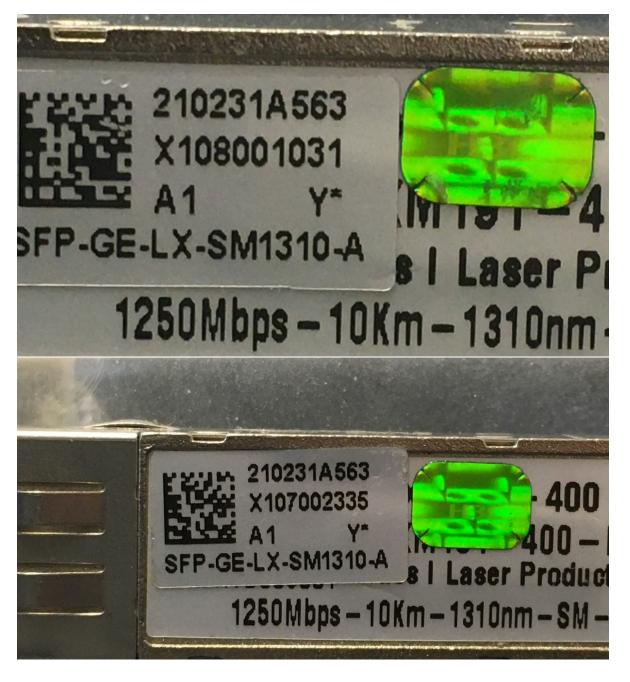


Figure 15. Photos of representative samples with hologram labels of unclear bright vertical dots when the sample is tilted at an angle of 27.6° with respect to the left.



Figure 16. Photos of representative samples with hologram labels showing clear edges of bright vertical dots when the is tilted at an angle of 27.6° with respect to the right.

8. The H3C verification report describes some logos as carrying a "H.3C" hologram label illustrated in Figure 4 above. Under white-light illumination specified in the test methodology, I found logos with a pronounced center-dot reflection that

overlaps with the bottom-left part of the number "3," creating an appearance of an elongation or a dot at its end. See Figure 17 below for illustration.



Figure 17. Photos of representative samples showing a pronounced reflection of the center dot that overlaps with the number "3".

I observed the same effect in the two pictures of the logos provided by Plaintiffs (Exhibit 6 to this report). However, I did not find logos with a separately printed dot between "H" and "3C," and did not include any in the total count of the logos showing indicators of counterfeiting.

I also note from the "H.3C" picture in the H3C verification report (Figure 4 above) that there are scratches or tears visible in the high-magnification image, and a dark vertical line appearing on the photo crossing the number 3 which could have created an appearance of a separated dot.

9. A total of 51 labels inspected (12.9% of 394 labels) showed no observable indicators of counterfeiting featured in the H3C bulletin or the verification report.

It is my opinion that the majority of the hologram labels inspected (343 of 394, or

87.1%) show indicators of counterfeiting described in the H3C security bulletin and the

verification report.

I declare under penalty of perjury that the foregoing is true and correct, and if called as

a witness I would testify competently thereto.

Dated: December 16, 2019

Boston, Massachusetts

Nicholas Xuanlai Fang

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Table 1: Summary of inspected hologram logos

Total transceivers	779	
Transceivers with completely	235	
damaged holograms		
Transceivers with old	150	
(Chinese) holograms		
Total holograms inspected	394	Percentage of
		logos*
Holograms with no	51	12.9%
observable indications of		
counterfeiting		
Total holograms with	343	87.1%
indicators of counterfeiting		
Off-centered word "H3C"	331	84.0%
Left shift	32 (median shift 0.58mm)	
Right shift	134 (median shift 0.64mm)	
Up shift	20 (median shift 0.5mm)	
Down shift	192 (median shift 0.64mm)	
Unclear dots from left angle	54	13.7%
Delaminated surface	14	3.6%
protective film	1. 4000/ 1	The second the second

<sup>\*</sup> The percentages do not add up to 100% because of the logos with more than one indicator of counterfeiting.

Within the 343 logos with indicators of counterfeiting:

- 1 logo was identified only with problem of delamination
- 11 logos were identified only with problem of unclear dots viewed from left angle
- 331 logos were identified with off-centered word "H3C"

### Within the 331 off-centered logos:

- 13 logos were identified in combination with problem of delamination
- 47 logos were identified with partially damaged labels and no further conclusive measurement besides shift
- 43 logos were identified in combination with problem of unclear dots viewed from left angle

# **EXHIBIT 1**

# **NICHOLAS FANG**

Professor of MIT/MechE Department,

Office: 3-449D, 77 Massachusetts Ave, Cambridge, MA 02139

http://web.mit.edu/nanophotonics

### **Education:**

Ph.D.	University of California, Los Angeles	2004			
M. S.	Nanjing University, China	1998			
B. S.	Nanjing University, China	1996			
Selected Honors and Awards:					
ASME Pi-Tau-Sigm	2006				
Award of Excellenc	2007				
TR35 Young Innova	2008				
SME Young Manuf	2009				
NSF CAREER Awa		2009			
Xerox Faculty Awar	rd, UIUC	2010			
Invited Participant of Frontier of Engineering					
by National Acaden	2010				
Cambridge Who's Who Professional of the Year					
in Higher Education	ı Category	2010			
ICO Prize/Ernest Al	bbe Medal by				
the International Co	mmission of Optics	2011			
ASME Chao and Trigger Young					
Manufacturing Engi	2013				
Fellow, International Society					
for Nanomanufactur	ring (ISNM)	2013			
	=				

### **Teaching Experience:**

Optics and Photonics, Materials, Manufacturing, Thermal-Fluidic Sciences, Sensor Technologies

### **Selected External Professional Service**

Editor in Chief, Journal of Micro- and Nano-Manufacturing	2018-Present
Co Editor-in-Chief, Frontiers in Optics and Photonics,	2014-present
Co-organizer, ASME Symposium on Acoustic/Phononic Metamaterials	2009-2013
Co-organizer, MRS Symposium on Metamaterials	2006, 2011, 2012
Technical Committee, CLEO/QELS	2011, 2012
Technical Committee, ICALEO Nanomanufacturing	2009-now
Expert Witness, Westlaw Round Table Group	2009- present
Board member, Heroyk Company	2015- present
User Committee, Center of Nanoscale Materials,	
Argonne National Laboratory	2009-2012

### Publications of Nicholas X. Fang

Professor Fang, together with his research group and collaborators, has published over 150 peer-reviewed archival journal publications; over 90 conference proceedings papers, 4 book chapters, and he is an inventor on one issued and several pending U.S. Patents. Professor Fang has mentored 11 M.S. and 30 Ph.D. theses as well as several postdoctoral associates.

### Selected Journal Publications: (from 150 journal articles, cited over 18000 times as of 2019)

- 1. Fang, N., H. Lee, C. Sun, and X. Zhang, "Sub-Diffraction-Limited Optical Imaging with a Silver Superlens," Science, 308: 5721, 534-537, 2005
- 2. XH Li, C Liu, SP Feng, NX Fang, "Broadband Light Management with Thermochromic Hydrogel Microparticles for Smart Windows", Joule 3:1, 290-302, 2019
- 3. Z Liu, H Du, J Li, L Lu, ZY Li, NX Fang, "Nano-kirigami with giant optical chirality", Science advances 4 (7), eaat4436, 2018
- 4. Tony Low, Andrey Chaves, Joshua D Caldwell, Anshuman Kumar, Nicholas X Fang, Phaedon Avouris, Tony F Heinz, Francisco Guinea, Luis Martin-Moreno, Frank Koppens, "Polaritons in layered Two Dimensional materials", Nature Materials, 16, 182–194 (2017)
- 5. Y. E Lee, O. D Miller, MT H. Reid, S. G Johnson, N. X Fang, "Computational inverse design of non-intuitive illumination patterns to maximize optical force or torque", Optics Express, 25, 6757-6766(2017)
- 6. Zheng Jie Tan, Dafei Jin, Nicholas X. Fang, "High-precision broadband measurement of refractive index by picosecond real-time interferometry", Applied Optics 55, 6625 (2016)
- 7. Jeffrey B. Chou, Yi Xiang Yeng, Yoonkyung E. Lee, Andrej Lenert, Veronika Rinnerbauer, Ivan Celanovic, Marin Soljacic, Nicholas X. Fang, Evelyn N. Wang and Sang-Gook Kim, "Enabling Ideal Selective Solar Absorption with 2D Metallic Dielectric Photonic Crystals", Adv. Mater, 26, 8041(2014)
- 8. Cui Y., K. H. Fung, J. Xu, H. Ma, J. Yi, S. He, and N. X. Fang, "Ultra-broadband Light Absorption by a Sawtooth Anisotropic Metamaterial Slab", Nano Letters, Vol 12:3, pp 1443-1447, (2012)
- 9. Wu W., Y. Liu, E. Kim, Z. Yu, N. Fang, C. Sun, X. Zhang, Y. R. Shen, S. Y. Wang and R. S. Williams, "Mid-IR Metamaterials Fabricated by Nanoimprint Lithography," Applied Physics Letters, 90:6, Art No. 063107, 2007.
- 10. Choi S., M. Yan, I. Adesida, K.H. Hsu, and N. X. Fang, "Ultradense Gold Nanostructures Fabricated using Hydrogen Silsesquioxane Resist and Applications for Surface-enhanced Raman Spectroscopy," Journal of Vacuum Science and Technology, 27:6, 2640-2643, 2009

### **Patents and Patent Applications:**

- 1. N. Fang, P. M. Ferreira, K. H. Hsu, P. Schultz, and A. Kumar, "Direct Nanoscale Patterning of Metals Using Polymer Electrolytes," US Patent No. 7,998,330, 2011.
- 2. X. Li, N. Fang, P, Ferreira, W. Chern, I, Chun, K. Hsu, "Method of Forming an Array Of High Aspect Ratio Semiconductor Nanostructures", US Patent No. 8980656, 2015.
- 3. C.M Spadaccini, G. Farquar, T. Weisgraber, S. Gemberling, N. Fang, J. Xu, M. Alonso, H. Lee, "High Resolution Projection Micro Stereolithography System And Method", US Patent Application number 2015/0309473, filed 2011.
- 4. Maxim Shusteff, Christopher M Spadaccini, Nicholas Fang, Robert Matthew Panas, Johannes Henriksson, Brett Kelly, Allison E Browar, "Multi-beam resin curing system and method for whole-volume additive manufacturing", US Patent Application US20180015672A1, filed 2016.
- 5. N. Fang, C. G. Xia and A. M. Cox, "Three-Dimensional Microfabricated Bioreactors with Embedded Capillary Network", US Patent Application, 20110033887, 2011.
- 6. N. Fang and J. Xu, "Low-cost, Light-weight, Passive Hearing Protector", US Patent Application, 62/192124, 2015
- 7. N. Fang and N. Viard, "Subwavelength Acoustic Metamaterial with Tunable Acoustic Absorption", US Patent Application, 62/248377, 2015
- 8. Wei Q, Su K, <u>Fang N</u> and Zhang X, "Micro-Electro-Mechanical Band-Pass Filters for Radio Frequency Signal Processing", US patent application, PCT/US05/35304.
- 9. B. Azeredo, N. X Fang, P. M. Ferreira, X. Han, , K. H. Hsu, K. E Jacobs, A. Kumar, "Direct nanoscale patterning of surfaces by electrochemical imprinting", PCT/US2011/025886.
- 10. C. Zhao, Y. Liu, Y. Zhao, N. Fang, and T. J. Huang, "A Reconfigurable Plasmofluidic Lens", US Patent application, 61/864,373.
- 11. Zhang, X., N. Fang, and C. Sun, "High-Speed Plasmonic Nano-Optical Microscope," UC provisional patent pending, 2005-174.
- 12. H. Lee and N. Fang, "Method of Large Area Three Dimensional Microfabrication Using Combined Digital Micromask and Droplet on Demand", MIT provisional patent pending, Case 16334.

**Technical Consulting since 2009**, for multiple patent cases related to optical imaging, pharma manufacturing, fluid and thermal sciences

# **EXHIBIT 2**

#### List of Publications of Nicholas X. Fang, from 2010 to 2019

#### **Papers in Referred Journals:**

- 1. Hsu, K., P. M. Ferreira and N. X. Fang, "Controlled Directional Growth of Silver Micro Wires on a Solid Electrolyte Surface," Applied Physics Letters, 96:2, art.no.024101, (2010).
- 2. Chaturvedi, P., W. Wu, V. J. Logeeswaran, Z. Yu, M. S. Islam, S. Y. Wang, R. S. Williams and N. X. Fang, "A Smooth Optical Superlens," Applied Physics Letters, 96:4, art.no. 043102, (2010).
- 3. Chern, W., Hsu K., Chun I.-S., de Azeredo B. P., Ahmed N., Kim K-H, Zuo J., Fang N., Ferreira P., and Li X., "Nonlithographic Patterning and Metal-Assisted Chemical Etching for Manufacturing of Tunable Light-Emitting Silicon Nanowire Arrays", Nano Letters, 10:5, pp 1582-1588, (2010).
- 4. Hsu, K., J. Back, K. H. Fung, P. Ferreira, M. Shim, and N. X. Fang, "SERS EM-field Enhancement Study through Fast Raman Mapping of Sierpinski Carpet Arrays," the Journal of Raman Spectroscopy, 41:10, pp 1124-1130, (2010).
- 5. Chaturvedi P. and N. X. Fang, "Sub-Diffraction Limited Far Field Imaging in Infrared," Frontiers of Physics in China, 5:3, pp. 324-329, (2010).
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### **EXHIBIT 3**



文档名称

### H3C 品牌主机、硬盘和光模块防伪公告 V1.1

为保障消费者权益,维护市场秩序,防止假冒产品扰乱正常的市场竞争机制,杭州华三通信技术有限公司(简称 H3C)宣布,在 H3C 品牌主机、硬盘和光模块产品上使用防伪标签(2010年5月10日起从旧版防伪标签切换为新版防伪标签)。

此次设备防伪标签技术的升级,将使消费者更容易辨别 H3C 产品的真伪,更好地保护消费者的合法权益免受侵害。

### 旧版防伪标签和新版防伪标签对比如下:

	旧主机标签	新主机标签	旧模块标签	新模块标签
图案	5600000122623 14124983	H3C 1234567896543	НЗС	нзс

本文主要介绍 H3C 品牌主机、硬盘和光模块的防伪验证方式:

### 1、主机、硬盘验证方式:

1.1、主机、硬盘所使用的新版防伪标签,从不同角度看可以看到不同的点,具体如下图:









文档密级

右边

左边

上边

下边

注: 老版防伪标签已经停用, 故不再介绍物理防伪特征。

1.2、主机、硬盘所使用的新版防伪标签和老版防伪标签,均含有明码和暗码(涂层覆盖),可以到下述链接输入 H3C 序列号(条码)、防伪明码、防伪暗码进行防伪验证:

条码防伪查询: http://channel.h3c.com/channel/system/SearchTrueCode.jsp

具体查询方式,请参见该页面的辅助说明。



文档名称 文档密级

1.3、产品本体带有防伪标签的主机、硬盘,产品一次包装箱外侧会有防伪提示标签。如下图:

#### 防伪提示

为了您的合法权益,请根据以下提示进行防伪检查:

请您打开包装后,检查产品上是否有防伪标签,并检查防伪标签是否已被刮开、破坏。

2、标签提供了明码、暗码(被刮剂墨覆盖)和产品序列号帮助 您确认产品为首次使用的真品;请登陆公司网站www.h3c.com.cn 点击进入条码防伪查询页面。根据网站提示输入上述号码。网站 需为您提供识别服务;如果您不是首次输入上述号码。系统将会 给出整示信息

如果您有任何疑问,请拨打杭州华三通信技术有限公司服务热线: 400 810 0504。

请注意不要破坏产品上的防伪标签,以免影响您的维保权利。 本标签的最终解释权归杭州华三通信技术有限公司所有

#### Counterfeit-proof Notice

Please follow the below instruction to verify the authenticity of the product.

First, upon taking the product out of the packaging, please examine the product security hologram label to make sure it is present and intact. Next, please visit the website at <a href="https://www.hbc.com">www.hbc.com</a> and click the link of Channel Barcode System, entering the verification code and the product serial number to verify the authenticity of the product. You will receive a warning message if the same information has been entered previously.

If you have any doubt, please contact your local dealer or sales agent immediately.

To ensure the warranty rights of the product is retained, please take care not to remove or damage the security hologram label on the product.

H3C reserve all rights to the final interpretation of this security hologram

注: 部分主机、硬盘产品, 经 H3C 评估无需纳入防伪标签管理范围, 因此产品本体无防伪标签, 产品一次包装箱外侧无防伪提示标签。

### 2、光模块验证方式:

2.1、光模块所使用的新版防伪标签,从不同角度看可以看到不同的点,具体如下图:







右边

左边

上边

下边

- 注: 老版防伪标签早已停用, 故不再介绍物理防伪特征。
- 2.2、光模块所使用的新版防伪标签和老版防伪标签,均不含有明码和暗码,可以到下述链接输入 H3C 序列号(条码)进行防伪验证:

条码防伪查询: <a href="http://channel.h3c.com/channel/system/SearchTrueCode.jsp">http://channel.h3c.com/channel/system/SearchTrueCode.jsp</a>

### 具体查询方式,请参见该页面的辅助说明。

2.3、由于光模块防伪标签不含明码和暗码,因此建议用户对于光模块产品增加上电校验。

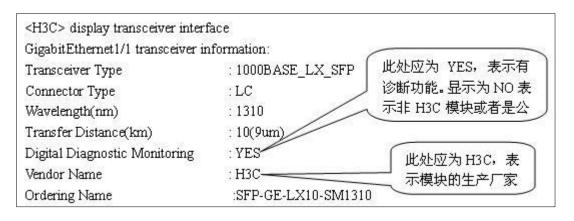
对于市面上常用的12种光模块(具体型号见附件),2008年3月31日后出厂的设备会逐步增加对这些光模块生产厂家的判断,对于非原厂认证的光模块,会



文档名称 文档密级

主动向日志主机和网管软件发送告警信息,用户也可以通过 Display transceiver interface 命令来查看光模块厂家信息。

### 举例说明:



a、对于上述 12 种光模块,如果生产日期在 2008 年 3 月 31 日之前,设备可能会出现误告警信息。您在使用中有任何疑问,可以联系 H3C 客服热线进行确认。

b、为了保障消费者的合法权益,降低非原厂认证模块的使用风险,建议您购买原厂光模块。H3C公司只对原厂产品提供相应的维保服务。

附:在 2008年3月31日后采用加密措施的12种光模块编号:

编号	产品描述	产品型号
1	光模块-SFP 100M/155M-多模模块-(1310nm, 2km, LC)	SFP-FE-SX-MM1310-A
2	光模块-SFP 100M/155M-单模模块-(1310nm, 15km, LC)	SFP-FE-LX-SM1310-A
3	光模块-SFP 100M/155M-单模模块-(1310nm, 40km, LC)	SFP-FE-LH40-SM1310
4	光模块-SFP 100M/155M 单模长距模块-(1550nm, 80km, LC)	SFP-FE-LH80-SM1550
5	光模块-SFP-GE-多模模块-(850nm, 0.55km, LC)	SFP-GE-SX-MM850-A
6	光模块-SFP-GE-单模模块-(1310nm, 10km, LC)	SFP-GE-LX-SM1310-A
7	光模块-SFP-GE-单模模块-(1310nm, 40km, LC)	SFP-GE-LH40-SM1310
8	光模块-SFP-GE-单模模块-(1550nm, 40km, LC)	SFP-GE-LH40-SM1550
9	光模块-SFP 千兆 BIDI 光模块-TX1310/RX1490, 10km, LC	SFP-GE-LX-SM1310-BIDI
10	光模块-SFP 千兆 BIDI 光模块-TX1490/RX1310, 10km, LC	SFP-GE-LX-SM1490-BIDI
11	光模块-SFP 百兆 BIDI 光模块-TX1310/RX1550, 15km, LC	SFP-FE-LX-SM1310-BIDI
12	光模块-SFP 百兆 BIDI 光模块-TX1550/RX1310, 15km, LC	SFP-FE-LX-SM1550-BIDI



文档名称 文档密级

如有疑问,可咨询 H3C 客服热线: 400 810 0504 (拨通后按 6 号键)

本指导书到此结束。

## H3C brand host, hard drives and optical modules security bulletin V1.1

Source URL: http://www.h3c.com.cn/Service/Service\_Notice/201005/675683\_30005\_0.htm

# H3C brand host, hard drives and optical modules security bulletin V1.1

To protect the interests of consumers, maintaining market order and prevent counterfeit products disrupt the normal market competition mechanism, Hangzhou H3C Technologies Co., Ltd. (H3C) announced that the use of security labels on H3C brand host, hard drives and optical module products (2010 5 Since switching from the old anti-counterfeit labels for the new month on the 10th security label).

The equipment upgrade security labels and technology, will make it easier for consumers to identify the authenticity of the H3C products, to better protect the legitimate rights and interests of consumers against infringement.

Old and the new security labels security labels contrast as follows:

# Old master label New host label The old module label Pattern Pattern Old master label New host label The new module label HBC HBC

This paper describes the security authentication H3C brand hosts, hard drives and optical modules:

- 1, the host, hard Disk authentication Methods:
- 1.1, the host, the new security labels used in hard disk, from a different perspective, you can see the different points, specifically the following figure:







The upper right side of the left lower

Note: The old version of the security label has been disabled, it is no longer describes the physical security features.

### 8/8/2014 Case 1:16-cv-10386-LTS HDrocenter feinter 4 confire ( DO3/16/20 Page 47 of 99

1.2, the host, the hard disk used the old version of the new anti-counterfeit labels and security labels, contain codes and secret code (coat coverage), can go to the following link to enter the H3C serial number (barcode), security codes, security code security verification dark:

Barcode Security Check: http://channel.h3c.com/channel/system/SearchTrueCode.jsp

Specific inquiries, please refer to assist the page's instructions.

. 1.3, the host body of the product with security labels, hard drives, security products once outside of the box will prompt label As shown below:



Note: Some hosts, hard disk products, the H3C security label to assess the scope of management without inclusion, so Product body no security label, the product once outside of the box without security prompts labels.

### 2, the Optical module authentication Methods:

2.1, the new anti-counterfeit labels optical modules used, from a different perspective, you can see the different points, specifically the following figure:









The upper right side of the left lower

Note: The old version of the security labels already disabled, it is no longer describes the physical security features.

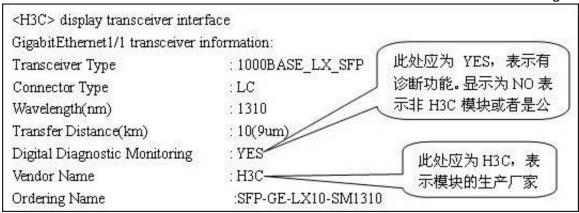
2.2, optical module uses the old version of the new anti-counterfeit labels and security labels, do not contain codes and password, go to the following link to enter the H3C serial number (barcode) conducted security verification:

Barcode Security Check: http://channel.h3c.com/channel/system/SearchTrueCode.jsp

Specific inquiries, please refer to assist the page's instructions.

- 2.3, due to the optical module security labels contain codes and password, so the user is encouraged to increase the power light modules check.
- 12 kinds of commonly available in the market for optical modules (specific models see Annex), after March 31, 2008 the factory equipment will gradually increase to these optical module manufacturers to determine, for non-factory-certified optical modules, will take the initiative to the log host and network management software to send alarm information, users can transceiver interface command to view the optical module manufacturers information Display.

For example:



a, for the above-mentioned 12 kinds of optical modules, if the production date prior to March 31, 2008, the device may occur false alarm information. You have any questions in use, you can contact the customer service hotline H3C confirmation.

b, in order to protect the legitimate rights and interests of consumers, reduce the risk of non-original authentication module, we recommend that you buy the original optical modules. H3C's only original products provide the appropriate maintenance services.

PS: In the future, March 31, 2008 using encryption measures 12 kinds of optical module ID:

Serial number	Product Description	Product Type
	Optical module -SFP 100M / 155M- multimode module - (1310nm, 2km, LC)	SFP-FE-SX- MM1310-A
	Optical module -SFP 100M / 155M- singlemode module - (1310nm, 15km, LC)	SFP-FE-LX- SM1310-A
	Optical module -SFP 100M / 155M- singlemode module - (1310nm, 40km, LC)	SFP-FE-LH40- SM1310
	Optical module -SFP 100M / 155M long distance single-mode module - (1550nm, 80km, LC)	SFP-FE-LH80- SM1550
	Optical module - SFP-GE- multimode module - (850nm, 0.55km, LC)	SFP-GE-SX- MM850-A
	Single-mode optical module -SFP-GE- module - (1310nm, 10km, LC)	SFP-GE-LX- SM1310-A
	Single-mode optical module -SFP-GE- module - (1310nm, 40km, LC)	SFP-GE-LH40- SM1310
	Single-mode optical module -SFP-GE- module - (1550nm, 40km, LC)	SFP-GE-LH40- SM1550
	BIDI optical module -SFP Gigabit optical modules -TX1310 / RX1490,10km, LC	SFP-GE-LX- SM1310-BIDI
	BIDI optical module -SFP Gigabit optical modules -TX1490 / RX1310,10km, LC	SFP-GE-LX- SM1490-BIDI
	Fast optical module -SFP BIDI optical module -TX1310 / RX1550,15km, LC	SFP-FE-LX- SM1310-BIDI
	Fast optical module -SFP BIDI optical module -TX1550 / RX1310,15km,	SFP-FE-LX-

If in doubt, consult H3C Hotline: 4008100504 (after dialing press the key on the 6th)

This is the end of this guide book.

### H3C brand host, hard drives and optical modules security bulletin V1.1

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H3C brand host, hard drives and optical modules security bulletin V1.1

To protect the interests of consumers, maintaining market order and prevent counterfeit promechanism, Hangzhou H3C Technologies Co., Ltd. (H3C) announced that the use of security optical module products (2010 5 Since switching from the old anti-counterfeit labels for the The equipment upgrade security labels and technology, will make it easier for consumers to to better protect the legitimate rights and interests of consumers against infringement.

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The upper right side of the left lower

Note: The old version of the security label has been disabled, it is no longer describes the pl 1.2, the host, the hard disk used the old version of the new anti-counterfeit labels and secu (coat coverage), can go to the following link to enter the H3C serial number (barcode), secul dark:

Barcode Security check: http://channel.h3c.com/channel/system/SearchTrueCode Specific inquiries, please refer to assist the page's instructions.

1.3, the host body of the product with security labels, hard drives, security products once o below:



Note: Some hosts, hard disk products, the H3C security label to assess the scope of manag security label, the product once outside of the box without security prompts labels.

### 2, the optical module authentication methods:

2.1, the new anti-counterfeit labels optical modules used, from a different perspective, you of following figure:







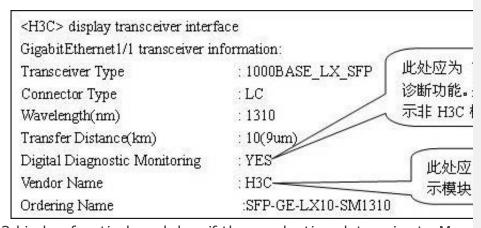
The upper right side of the left lower

Note: The old version of the security labels already disabled, it is no longer describes the ph 2.2, optical module uses the old version of the new anti-counterfeit labels and security labels the following link to enter the H3C serial number (barcode) conducted security verification:

Barcode Security check: http://channel.h3c.com/channel/system/SearchTrueCode Specific inquiries, please refer to assist the page's instructions.

- 2.3, due to the optical module security labels contain codes and password, so the user is en modules check.
- 12 kinds of commonly available in the market for optical modules (specific models see Annex equipment will gradually increase to these optical module manufacturers to determine, for no the initiative to the log host and network management software to send alarm information, wiew the optical module manufacturers information Display.

For example:



a, for the above-mentioned 12 kinds of optical modules, if the production date prior to Marc information. You have any questions in use, you can contact the customer service hotline H. b, in order to protect the legitimate rights and interests of consumers, reduce the risk of no recommend that you buy the original optical modules. H3C's only original products provide t PS: In the future, March 31, 2008 using encryption measures 12 kinds of optical module ID:

	Product Description	Product Type
number		
1	Optical module -SFP 100M / 155M- multimode	SFP-FE-SX-MM1310-A
	module - (1310nm, 2km, LC)	STF-TE-SA-WIVITSTO-A
2	Optical module -SFP 100M / 155M- singlemode	

J14	Case 1:16-cv-10386-LIS Helpocumpte integral of the	<del>••и•е</del> 0-ши/шь/20 Page 52 01
	module - (1310nm, 15km, LC)	SFP-FE-LX-SM1310-A
3	Optical module -SFP 100M / 155M- singlemode module - (1310nm, 40km, LC)	SFP-FE-LH40-SM1310
4	Optical module -SFP 100M / 155M long distance single-mode module - (1550nm, 80km, LC)	SFP-FE-LH80-SM1550
5	Optical module -SFP-GE- multimode module - (850nm, 0.55km, LC)	SFP-GE-SX-MM850-A
6	Single-mode optical module -SFP-GE- module - (1310nm, 10km, LC)	SFP-GE-LX-SM1310-A
7	Single-mode optical module -SFP-GE- module - (1310nm, 40km, LC)	SFP-GE-LH40-SM1310
8	Single-mode optical module -SFP-GE- module - (1550nm, 40km, LC)	SFP-GE-LH40-SM1550
9	BIDI optical module -SFP Gigabit optical modules -TX1310 / RX1490,10km, LC	SFP-GE-LX-SM1310- BIDI
10	BIDI optical module -SFP Gigabit optical modules -TX1490 / RX1310,10km, LC	SFP-GE-LX-SM1490- BIDI
11	Fast optical module -SFP BIDI optical module -TX1310 / RX1550,15km, LC	SFP-FE-LX-SM1310- BIDI
12	Fast optical module - SFP BIDI optical module - TX1550 / RX1310,15km, LC	SFP-FE-LX-SM1550- BIDI

If in doubt, consult H3C Hotline: 4008100504 (after dialing press the key on the 6th) This is the end of this guide book.

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### **EXHIBIT 4**

### 对"北京程于团伙售假案件"查扣光模块鉴定材料

### 一、鉴定结论

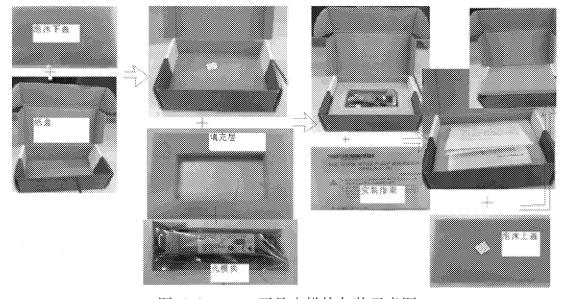
对"北京程于团伙售假案件"查扣光模块从产品包装、产品外观两个方面与H3C正品进行了逐一比对。经鉴定,所查扣光模块绝大多数与我司正品存在明显差异。鉴定结果为商标侵权。具体如下:

### 二、鉴定内容

### (一) 产品包装比对

### 1、H3C产品外包装情况:

H3C 品牌光模块外包装为红白相间带瓦楞纸盒。包装盒内装有红色防震、防静电泡棉。光模块按照防静电工艺要求放在折叠的银色防静电袋中。包装盒及防静电袋各自有封口胶进行封口。具体见图示:



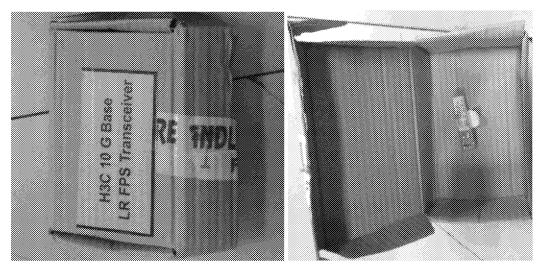
图(1) H3C 正品光模块包装示意图



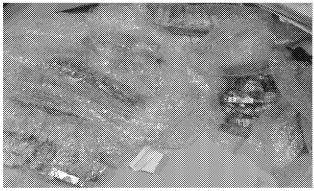
图(2) H3C 正品光模块防静电袋

### 2、被鉴定物品外包装情况:

扣押产品没有华三产品工艺标准的外包装盒、防震防静电泡棉填充材料、防静电胶袋。而是将几十个裸露的光模块放在一个气泡袋中,然后再装入一个麻粉纸盒里面。与正品的外包装及运输环境、产品包装完全不同。具体见图示:



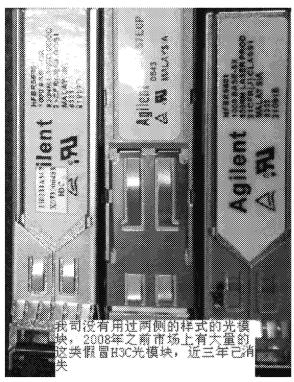
图(3) 扣押产品的外包装



图(4) 扣押产品的包装材料

### (二) 产品外观对比

1、大量查扣产品与我司光模块正品本体外表不一致





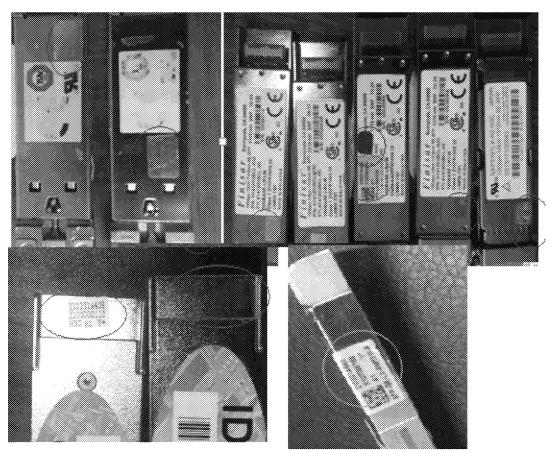
图(5) 扣押产品与正品模块外观不同(2008年前这样的假货较多)

### 2、大量查扣产品本体上粘贴的标签与正品不一致

### (1) 大量查扣产品的标签粘贴位置不一致 五花八门

H3C 正品光模块本体上粘贴的条码标签、防伪标签有严格工艺规范要求,由经过培训的工人在流水线上正规化生产,故同型号光模块标签粘贴位置是一致的。同时,H3C 光模块标签是一次性有效的,揭开即破损失效,即黏贴后是不可被完整揭离光模块本体后重新完整黏贴到其他位置。

而扣押产品的标签粘贴位置不一致,且粘贴不规整,粘贴在各种不同位置的 情形均有,详见下图:

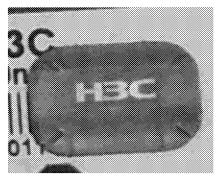


图(6) 扣押产品上标签粘贴位置凌乱

从标签(含防伪标签)粘贴情况可以判断,这些光模块是由不熟悉华三技术工艺、不具备生产技术要求的人员凭想象加工出来的。

### (2) 扣押产品防伪标签异常,为假冒标签

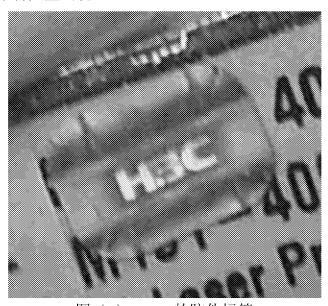
H3C 正品的防伪标签色彩鲜艳,可以从不同角度看出不同个数的圆点,在防伪标签正中有"H3C"字样,具体见下图:



图(7) 正品光模块防伪标签, H3C 居标签正中

而扣押产品的防伪标签存在诸多问题,具体见下:

A)、部分 H3C 的 L0G0 被印成了"H. 3C"(该类型假冒标签在 2012 年底北京警方查获的龙谷鸿图案中曾大量出现)。



图(8) H.3C 的防伪标签

B)、大量查扣产品的防伪标签表层轻易就"飞走"了,即出现极易分层脱落的现象,且色彩黯淡。具体见图示:

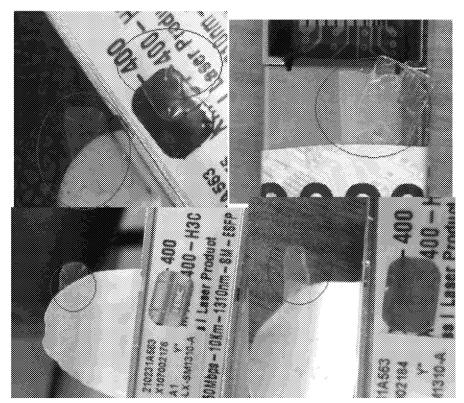
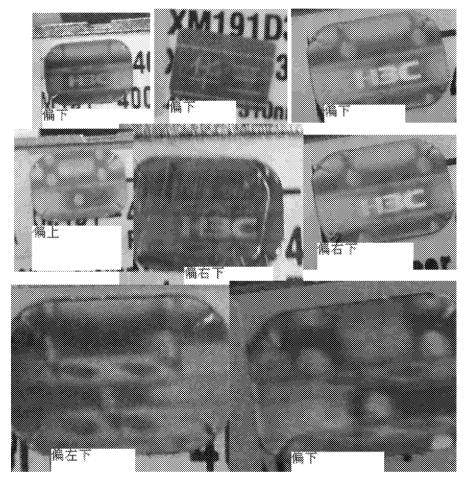


图 (9) 防伪标签表层"飞走"

C)、大量查扣产品防伪标签上的 H3C 字样印偏,不在标签的中心位置。具体见图示:



图(10) 防伪标签中 H3C 不居中

在扣押的 700 余件光模块产品中,基本上所有的被扣押产品都存在以上一种或多种异常(与正品的不一致)现象。鉴定受时间所限,没有对以上各种异常数量的多少进行精确统计。但是,这并不影响对这批查扣产品的整体鉴定结论,即以上标签(含防伪标签)异常,足以说明被扣押的这些光模块至少大多数都确定是假冒 H3C 产品。

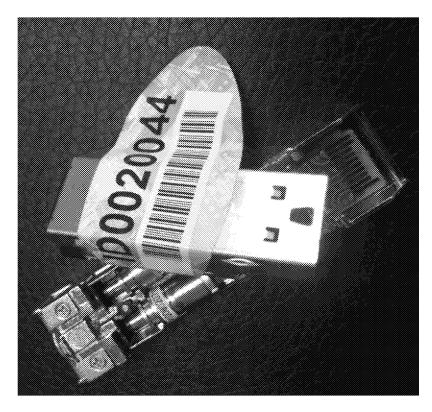
- 3、查扣产品没有与正品一致的《安装使用说明书》,查扣产品没有提供产品使用说明书。
  - 4、查扣产品存在其它影响产品性能的问题
  - 1) 查扣产品中有部分在模块本体上写有"坏"的字样;



图(11) 模块上写有"坏"的字样

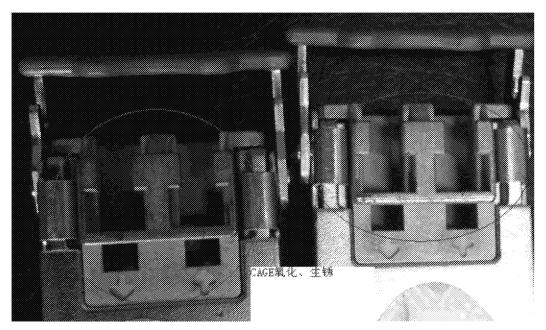
2) 查扣产品中有部分光模块外壳脱落,并有不明厂家标贴标识,具体见图

示:



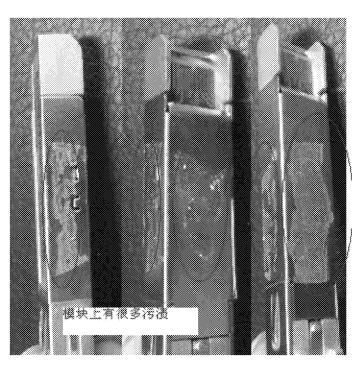
图(12) 光模块外壳脱落,有不明厂家标贴标识

3) 查扣产品中有很多光模块外壳氧化生锈情况



图(13) 光模块外壳氧化、生锈

4)、查扣产品中有很多外壳上有不明污渍。该污渍可能是在设备更改时留下的印迹。



图(14) 光模块上有污渍

### 三、特别说明:

鉴定时受现场临时搭建交换机网络测试环境等硬件条件限制,因此未对其 电性能进行进一步的测试。从大量被鉴定物的物理特征来判定,可以认定该批 扣押产品外观各异,存在很多作假痕迹,这种明显假冒的物品上电检测没有实

际意义。因此,我们未对该批扣押产品的电性能作进一步鉴定。

光模块上电检测的目的有两条:第一,检验电性能是否合格;第二,查看内存中写入的产品特征字段。

- 1、市面上同类光模块还有不少,其中大多数光模块(甚至包括部分假冒H3C 品牌的光模块)都可以通过电性能检测。电性能是否能通过检测,与产品是否假冒商标之间没有必然联系。就如同假冒品牌的电视机可能照样可以收看电视节目一样。
- 2、在理论上、在打假实践中都证明: 光模块内存中的产品特征字段是可能被造假者通过类似黑客的手法改写的。并且软件特点决定了这种改写是不会留下痕迹的,不像标签造假那样总能有细微的差别被看出来。

鉴于以上两点,上电检测不能作为判断产品是真品的条件。故上电检测实际上是没有意义的。

### 四、该批扣押产品存在严重商标侵权并可能导致恶劣社会影响

这批扣押产品存在明显的商标侵权,并且从根本上无法保障其品质功能,流 落到社会上必将严重侵害消费者利益、侵犯华三知识产权,更有甚者,可能给国 家、社会、经济建设造成不可估量的后果、损失。

### 1、从社会层面上看:

光模块产品作为网络通信设备之间的"关口",起着光电信号转换的重要作用,被称为信息高速公路的枢纽。光模块如果性能不合格、或者性能不稳定一旦损坏,对网络设备的直接影响是造成大面积设备通信故障(亦称:关口不通)。被扣押产品中包含有大量万兆级别的光模块,这类光模块一般用于大型网络骨干线路建设,如国家三金工程、城市高铁项目、航空项目、金融系统、高等教育系统等。如果使用了没有品质保障的假冒光模块受损,将引起骨干网络的通信中断。如遇特殊时期(如自然灾害、突发性事件处理等),这种损坏将造成重大损失,带来恶劣的社会影响,破坏社会稳定,其后果将无法估量。

### 2、从企业经营层面上看:

在网络时代,这种因为使用了假冒光模块而引发的网络瘫痪,造成

客户财务信息丢失、重要科研成果和客户信息丢失,对客户经营造成重大损失,同时也将给 H3C 带来重大经济损失,对 H3C 品牌信誉造成重大损害,这种损害远远高出假冒模块的市场价格。

### PLAINTIFFS' OFFICE TRANSLATION OF DEF0002807-DEF0002817

Identification of seized transceivers in the "Beijing Cheng/Yu counterfeit sales case"

The product packaging and product appearance of the seized transceivers in the "Beijing Cheng/Yu counterfeit sales case" were compared with H3C genuine product. After identification, the vast majority of the seized transceivers examined are found to be significantly different from our genuine products. The result of the identification is trademark infringement, details as follows:

Identification content

Product packaging comparison

1. H3C product packaging:

The H3C transceiver is packaged in red and white with corrugated boxes. The box is equipped with red shockproof and antistatic foam. The transceiver is placed in a folded silver anti-static bag in accordance with the anti-static process requirements. The packaging box and the anti-static bag are each sealed with a sealing glue. See the illustration for details:

Figure (1) H3C genuine transceiver packaging schematic

Figure (2) H3C genuine transceiver anti-static bag

2. The outer packaging of the identified items:

The seized products do not have the outer packaging box of the H3C product technology standard, the anti-shock anti-static foam filling material, and the anti-static plastic bag. Instead, dozens of bare transceivers are put in a bubble bag and then loaded into a hemp toned box. It is completely different from the genuine outer packaging and transportation environment and product packaging. See the illustration for details:

Figure (3) The outer packaging of the seized product

Figure (4) Packaging materials for seized products

- (2) Comparison of product appearance
- 1. A large number of seized products are inconsistent with our transceivers.

Figure (5) The seized product is different from the original module (more fakes like this before 2008)

- 2. A large number of tags attached to the product body are inconsistent with the genuine product.
- (1) The label attachment position of a large number of seized products is inconsistent.

The bar code label and anti-counterfeit label attached to the H3C genuine transceiver body have strict technical specifications, and are regularly produced by trained workers on the assembly line. Therefore, the labeling position of the same type transceiver label is consistent. Meanwhile,

the H3C transceiver label is valid at one time and is damaged if removed. That is, after the adhesive is attached, the label cannot be completely removed from the transceiver body and then completely reattached to other locations.

The labeling position of the seized product is inconsistent, and the paste is not regular, and it is pasted in various positions. See the following figure:

Figure (6) The label placement position on the seized product is messy

It can be judged from the labeling of the label (including the anti-counterfeit label) that these transceivers are processed by the imagination of those who are not familiar with the technology of H3C and do not have the technical requirements for production.

(2) The anti-counterfeit label of the seized product is abnormal and is a counterfeit label.

H3C's authentic anti-counterfeit labels are colorful, and you can see different numbers of dots from different angles. There is "H3C" in the center of the anti-counterfeit label. See the following figure for details:

Figure (7) Genuine transceiver security label, H3C home label center

There are many problems with the anti-counterfeiting label of the seized products, as follows:

A) part of the H3C LOGO was printed as "H.3C" (this type of counterfeit label appeared in the Longguhongtu pattern seized by the Beijing police at the end of 2012).

Figure (8) H.3C security label

B) the surface of the anti-counterfeit label of a large number of seized products is easily "flying away," that is, the phenomenon of delamination and detachment is extremely easy, and the color is bleak. See the illustration for details:

Figure (9) Anti-counterfeit label surface "fly away"

C) a large number of H3C type offset on the anti-counterfeit label of the product is not in the center of the label. See the illustration for details:

Figure (10) H3C is not centered in the anti-counterfeit label

Among the more than 700 pieces of transceivers seized, basically all of the seized products have one or more of the above abnormalities (inconsistent with the genuine ones). The identification is limited by time, and there is no accurate statistics on the number of abnormalities above. However, this does not affect the overall appraisal conclusion of the batch of seized products, that is, the above labels (including anti-counterfeiting labels) are abnormal, which is sufficient to indicate that at least most of the seized transceivers are determined to be counterfeit H3C products.

3. The product is not in accordance with the "Installation and Operation Manual," and the product is not provided with the product manual.

- 4. The checked product has other problems affecting product performance
- 1) Some of the products in the check-out product have the word "defective" written on the module body;

Figure (11) The word "defective" is written on the module.

2) Some of the transceivers covers are removed from the product, and there are unidentified manufacturers' logos. See the illustration:

Figure (12) The transceivers cover is detached, and there is an unknown manufacturer's label.

3) There are many transceivers casings in the product that are oxidized and rusted.

Figure (13) The transceiver casing is oxidized and rusted

4) There are many unidentified stains on the outer casing of the product. This stain may be the footprint left when the device changes.

Figure (14) There are stains on the transceiver

Third, special instructions:

During the identification, the hardware conditions such as the temporary establishment of the switch network test environment were limited, so the electrical performance was not further tested. Judging from the physical characteristics of a large number of identified objects, it can be concluded that the batch of seized products have different appearances and there are many false marks. This kind of obvious counterfeit goods has no practical significance for power-on detection. Therefore, we have not further identified the electrical properties of the seized products.

There are two purposes for power-on detection of a transceiver: first, check whether the electrical performance is qualified. Second, check the product feature field written in the memory.

- 1. There are still many similar transceivers on the market. Most of the transceivers (including some transceivers with counterfeit H3C brand) can pass the electrical performance test. Whether the electrical performance can pass the test is not necessarily related to whether the product is a counterfeit trademark. Just like a fake brand TV can still play TV shows.
- 2. In theory, in the practice of counterfeiting, it is proved that the product feature field in the memory of the transceiver may be rewritten by the counterfeiter or a similar hacker. And the characteristics of the software determine that this rewriting will not leave traces, unlike the label fraud, there are always subtle differences.

In view of the above two points, the power-on detection cannot be used as a condition for judging that the product is genuine. Therefore, power-on detection is actually meaningless.

4. The seized products have serious trademark infringement and may cause adverse social impacts.

These seized products have obvious trademark infringement, and fundamentally cannot guarantee their quality functions. Flowing into the society will seriously infringe on the interests of consumers and infringe on the intellectual property rights of H3C. What is more, it may give the country, society and economy immeasurable consequences and losses.

### From a social perspective:

As a "gateway" between network communication devices, transceivers play an important role in photoelectric signal conversion and are called the hub of the information highway. If the transceiver fails the performance or the performance is unstable, the direct impact on the network device is caused by a large-area device communication failure (also known as the gateway shutdown). The seized products contain a large number of 10 Gigabit transceivers. These transceivers are generally used for the construction of large-scale network backbone lines, such as the National Sanjin Project, the Urban High-speed Rail Project, the Aviation Project, the Financial System, and the Higher Education System. If the use of a fake transceiver without quality assurance is damaged, communication in the backbone network will be interrupted. In the case of special periods (such as natural disasters, sudden incidents, etc.), such damage will cause significant losses, bring about bad social impacts, and undermine social stability, and the consequences will be incalculable.

### From the perspective of business management:

In the network era, this kind of network shackle caused by the use of counterfeit transceivers causes loss of financial information, important scientific research results and loss of customer information, causing significant losses to customers' operations and also causing significant economic losses to H3C. This has caused significant damage to the H3C brand reputation, which is far higher than the market price of counterfeit transceivers.

**	Unit Serial Number	Form Factor	Partial Physically damaged labels: Inconclusive	Delamination	Off centered Hologram	Chinese hologram, no criteria	Wrong positioning of hologram	No hologram label	Unclear dots from left angle	No defect observed
H	1 100040072320	SFP				chinese hologram, no criteria				
2	2 100040361088	SFP				chinese hologram, no criteria				
ж	3 100042251666	SFP				chinese hologram, no criteria				
4	4 100042251668	SFP				chinese hologram, no criteria				
2	5 100044061421	SFP				chinese hologram, no criteria				
9	6 100044061426	SFP				chinese hologram, no criteria				
7	7 100044061429	SFP				chinese hologram, no criteria				
∞	8 100044061782	SFP				chinese hologram, no criteria				
6	9 100044062810	SFP				chinese hologram, no criteria				
10	10 100044062830	SFP				chinese hologram, no criteria				
11	11 100044380538	SFP				chinese hologram, no criteria				
12	12 100044381410 13 100044381545	SFP SFP				chinese hologram, no criteria		No hologram label		
14	14 610000271948	SFP				chinese hologram, no criteria				

									No defect	
no hologram label no hologram label no hologram label no hologram label no hologram label						no hologram label		no hologram label no hologram label no hologram label no hologram label		
	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria					
SFP SFP SFP SFP SFP SFP SFP	SFP	SFP	SFP	SFP	SFP	SFP SFP	SFP	SFP SFP SFP SFP SFP	SFP SFP	SFP
43 A0510601360 44 A0510601425 45 A0510601978 46 A0510602093 47 A0510701172 48 A0510702108	49 BP0939440216	50 BP0940070079	51 BP0942A00317	52 BP0942A00318	53 BP0944260129	54 BP0944260286 55 BP0944260330	56 BP0944260340	57 BP0944260410 58 BP0944260593 59 BP0944260680 60 BP0944261273 61 BP0944261291	62 BP0944370281 63 BP0944370285	64 BP0944370289

	no hologram label		no hologram label		no hologram label	no nologram label	no nologram label	<b>-</b>	no hologram label																			
chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram,												3	Wrong nositioning of	hologram	)									
SFP	SFP SFP	SFP	SFP SFP	d y	SFP	710	440		SFP																			
65 BP0944370290	66 BP0944370508 67 BP0950100211	68 BP1002040275	69 BP1009240745 70 BP1009250002	71 RP1009250003	72 BP1009250004	73 BP1009250009	75 BP1009250013	76 BP1009250015	77 BP1009250019		79 BP1009250025				83 BP1009250048			85 BP1009250050	86 BP1009250062	87 BP1009250064	88 BP1009250066	89 BP1009250068	90 BP1009250082	91 BP1009250088	92 BP1009250090	93 BP1009250091	94 BP1009250095	95 BP1009250096

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						No defect		
no hologram label no hologram label no hologram label no hologram label no hologram label	no hologram label no hologram label no hologram label	no hologram label			no hologram label			no hologram label no hologram label
			Wrong positioning of hologram					
	chinese hologram, no criteria	chinese hologram, no criteria chinese hologram, no criteria	chinese hologram, no criteria chinese hologram, no criteria	chinese hologram, no criteria	onness nooglan, no criteria	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria
SP S	SP S	SFP GP	SFP SFP	SFP	SFP SFP	SFP SFP	SFP	SP 978 978 978
96 BP1009250151 97 BP1009250157 98 BP1009250159 99 BP1009250160	101 BP1009250162 102 BP1009250173 103 BP1009250178 104 BP1009250180	105 BP1009250181 106 BP1009250182 107 BP1009250184	108 BP1009250185 109 BP1009250187	110 BP1009250188	111 BP1009250189 112 BP1009250190	113 BP1009250191 114 BP1009250253	115 BP1009250255	116 BP1009250258 117 BP1009250262 118 BP1009250267

119 BP1009250268	SFP			no hologram label
120 BP1009250269 121 BP1009250270	SFP SFP	chinese hologram, no criteria	Wrong positioning of hologram	no hologram label
122 BP1009250273 123 BP1009250275	SFP SFP	chinese hologram, no criteria		no hologram label
124 BP1009250278 125 BP1009250280	SFP SFP	chinese hologram, no criteria		no hologram label
126 BP1009250281 127 BP1009250285	SFP SFP	chinese hologram, no criteria		no hologram label
128 BP1009250298 129 BP1009250299	SFP SFP	chinese hologram, no criteria		no hologram label
130 BP1009250300	SFP	chinese hologram, no criteria		
131 BP1009250304	SFP	chinese hologram, no criteria		
132 BP1009250305 133 BP1009250306 134 BP1009250307	SFP SFP	chinese hologram, no criteria		no hologram label no hologram label
135 BP1009250308	SFP	chinese hologram, no criteria	Wrong	
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137 BP1009250310 138 BP1009250312	SFP SFP			no nologram label no hologram label
139 BP1009250322 140 BP1009250363	SFP SFP			no hologram label no hologram label
141 BP1009250367	SFP			no hologram label

142 BP1009250368	SFP		no hologram label
143 BP1009250369	SFP	chinese hologram, no criteria	
144 BP1009250370	SFP		no hologram label
145 BP1009250376	SFP		no hologram label
146 BP1009250382	SFP		no hologram label
147 BP1009250396	SFP		no hologram label
148 BP1009250452	SFP		no hologram label
		chinese hologram,	
149 BP1009250470	SFP	no criteria	
150 BP1009250472	SFP		no hologram label
		chinese hologram,	
151 BP1009250473	SFP	no criteria	
		chinese hologram,	
152 BP1009800156	SFP	no criteria	
		chinese hologram,	
	SFP	no criteria	
	SFP		no hologram label
155 BP1010840003	SFP		no hologram label
		chinese hologram,	
156 BP1010840004	SFP		
		logram,	
157 BP1010840010	SFP	no criteria hologram	
158 BP1010840022	SFP		no hologram label
159 BP1010840023	SFP		no hologram label
160 BP1010840025	SFP		Unclear dots
		chinese hologram,	
	SFP	no criteria	
162 BP1010840028	SFP		no hologram label
		chinese hologram,	
163 BP1010840118	SFP	no criteria	
164 BP1010840121	SFP		no hologram label
165 BP1010840129	SFP		no hologram label

			Wrong	
		chinese hologram,	positioning of	
166 BP1010840142	SFP	no criteria	hologram	
167 BP1010840150	SFP			no hologram label
168 BP1010840164	SFP			no hologram label
		chinese hologram,		
169 BP1010840165	SFP	no criteria		
		chinese hologram,		
170 BP1010840167	SFP	no criteria		
		chinese hologram,		
171 BP1010840169	SFP	no criteria		
		chinese hologram,		
172 BP1010840173	SFP	no criteria		
1/3 BP10108401// 17/ BP10108/0179	OFD SED			no hologram label
0/10400101 IQ 4/1				10081 118001
		chinese hologram,		
175 BP1010840182	SFP	no criteria		
176 BP1010840183	SFP			no hologram label
177 BP1010840188	SFP			no hologram label
178 BP1010840193	SFP			no hologram label
179 BP1010840205	SFP			no hologram label
			Wrong	
180 BP1010840210	SFP		positioning or hologram	no hologram label
181 RP1010840213	C C C		0	no hologram lahel
182 BP1010840214	SFP			no hologram label
183 BP1010840217	SFP			no hologram label
		chinese hologram		
184 BP1010840218	SFP	no criteria		
		chinese hologram,		
185 BP1010840233	SFP	no criteria		
186 BP1010840247	SFP			no hologram label
187 BP1010840251	SFP			no hologram label
		-	Wrong	
188 BP1010840253	9	chinese hologram, no criteria	positioning of	
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Wrong positioning of hologram label no hologram label	no hologram label no hologram label	no hologram label Wrong	positioning of hologram no hologram label Wrong	positioning of hologram no hologram label no hologram label	no hologram label Wrong	hologram no hologram label	no hologram label Wrong positioning of	hologram no hologram label
chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria			chinese hologram, no criteria		chinese hologram, no criteria criteria chinese hologram,	no criteria
93 93 84 84 84 84 84 84 84 84 84 84 84 84 84	SFP SFP	SFP	SFP	SFP SFP	SFP SFP	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	SFP SFP	SFP
189 BP1010840257 190 BP1010840261 191 BP1010840267	192 BP1010840289 193 BP1010840293 194 BP1010840294	195 BP1010840379 196 BP1010840380	197 BP1010840382	198 BP1010840385 199 BP1014550101	200 BP1014550103 201 BP1014550106	202 BP1014550107 203 BP1014550111 204 BP1014550112 205 BP1014550114 206 BP1014550115 207 BP1014550118	208 BP1014550171 209 BP1014550174	210 BP1014550177 211 BP1014550178

		No defect				Unclear dots	Unclear dots
no hologram label	no hologram label no hologram label	no hologram label no hologram label	no hologram label	no hologram label no hologram label no hologram label	no hologram label no hologram label	U no hologram label no hologram label no hologram label	no hologram label no hologram label U no hologram label
						Wrong positioning of	2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria chinese hologram,	יוס כו ובנו ש
SFP	SF 978	42 42 42 43 43 43 43 43 43 43 43 43 43 43 43 43	SFP	42 42 42 42 42 42 42 42 42 42 42 42 42 4	SFP SFP SFP	G G G G G	7
212 BP1014550180	213 BP1014550183 214 BP1014550186 215 BP1014550187	216 BP1014550191 217 BP1014550225 218 BP1014550228 219 BP1014550245	220 BP1014550247 221 BP1014550250	222 BP1014550251 223 BP1014550252 224 BP1014550259 225 BP1014550271	226 BP1014550273 227 BP1014550274 228 BP1014550277	229 BP1014550278 230 BP1014550279 231 BP1014550280 232 BP1014550306	234 BP1014550315 236 BP1014550315 237 BP1014550320 238 BP1014550324 239 BP1014550326

				Wrong		
			chinese hologram,	positioning of		
240 BP1014550329	SFP		no criteria	hologram		
			chinese hologram,			
241 BP1014550330	SFP		no criteria			
			:	Wrong		
	i i		chinese hologram,	positioning of		
242 BP1014550334	SFP		no criteria	hologram		
243 BP1014550365	SFP				no hologram label	
244 BP1014550367	SFP				no hologram label	
			chinese hologram,			
245 BP1014550369	SFP		no criteria			
246 BP1014550372	SFP	right shift	right shift, down shift			
247 BP1014550375	SFP		chinese hologram, no criteria			
		Physically damaged				
248 BP1014550377	SFP	label righ	right shift			
249 BP1014550381	SFP				no hologram label	
250 BP1014550384	SFP				no hologram label	
251 BP1014550386	SFP				no hologram label	
252 BP1014550387	SFP				no hologram label	
253 BP1014550593	SFP				no hologram label	
254 BP1014550594	SFP				no hologram label	
255 BP1014550595	SFP				no hologram label	
256 BP1014550599	SFP				no hologram label	
257 BP1014550600	SFP				no hologram label	
258 BP1014550602	SFP				no hologram label	
			chinese hologram,			
259 BP1014550617	SFP		no criteria			
260 BP1014550621	SFP				no hologram label	
			chinese hologram,			
261 BP1014550622	SFP		no criteria			
262 BP1014550623	SFP				no hologram label	
	í L		chinese hologram,			
263 BP1014550624	SFP		no criteria			

chinese hologram, no criteria no hologram label	chinese hologram, no criteria no hologram label no hologram label no hologram label no hologram label	chinese hologram, no criteria  Wrong chinese hologram, positioning of no criteria hologram no hologram label chinese hologram, no hologram label	chinese hologram, no criteria no hologram label chinese hologram,	chinese hologram, no criteria no hologram label no hologram label
SFP SFP SFP SFP SFP SFP SFP SFP SFP	SFP SFP SFP SFP SFP SFP SFP SFP	SFP SFP SFP SFP	SFP SFP SFP	SFP SFP SFP
264 BP1014550638 265 BP1014550639 266 BP1014550640 267 BP1014550644 268 BP1014550651 269 BP1014550652	271 BP1014550655 272 BP1014550660 273 BP1014550662 274 BP1014550710 275 BP1014550743	277 BP1014550745 278 BP1014550749 279 BP1014550757 280 BP1014550759	282 BP1014550765 283 BP1014550766 284 BP1014550767	285 BP1014550769 286 BP1014550793 287 BP1014550794

no hologram label no hologram label no hologram label no hologram label	no hologram label	no hologram label no hologram label no hologram label		no hologram label no hologram label no hologram label no hologram label no hologram label	no hologram label	
	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria
SFP SFP SFP SFP	SFP SFP	SFP SFP SFP SFP	SFP	SFP SFP SFP SFP SFP SFP	SP S	SFP
289 BP1014550798 290 BP1014550800 291 BP1014550807 292 BP1014550809	293 BP1014550830 294 BP1014550834	295 BP1014550851 296 BP1014550877 297 BP1014550878 298 BP1014550879	299 BP1014550882	300 BP1014550884 301 BP1014550887 302 BP1014550891 303 BP1014550894 305 BP1014550897	306 BP1014550899 307 BP1014550903 308 BP1014550904 309 BP1014550905 310 BP1014550907 311 BP1014550910 313 BP1014550914 315 BP1014550916 316 BP1014550928 317 BP1014550928	319 BP1014550969

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Page

320 BP1014550971	SFP				no hologram label
321 BP1014551012 322 BP1014551013	SFP SFP	right shift	chinese hologram, no criteria	Wrong positioning of hologram	
323 BP1014551026	SFP		chinese hologram, no criteria		
324 BP1014551038 325 BP1014551039 326 BP1014551042	SFP SFP SFP		chinese hologram, no criteria		no hologram label no hologram label
327 BP1014551043 328 BP1014551044	SFP SFP		chinese hologram, no criteria chinese hologram, no criteria	Wrong positioning of hologram Wrong positioning of hologram	
329 BP1014551046 330 BP1014551102 331 BP1014551123	SFP SFP SFP		chinese hologram, no criteria		no hologram label no hologram label
332 BP1014551130 333 BP1014551132 334 BP1014551136 335 BP1014551139	SFP SFP SFP SFP SFP		chinese hologram, no criteria chinese hologram, no criteria	Wrong positioning of hologram	no hologram label no hologram label
336 BP1014551142	SFP		chinese hologram, no criteria		
337 BP1014551146 338 BP1014551148 339 BP1014551149 340 BP1014551150 341 BP1014551151	SFP SFP SFP SFP SFP	left shift	chinese hologram, no criteria		no hologram label no hologram label no hologram label no hologram label

		no hologram label			no hologram label	Wrong positioning of hologram no hologram label no hologram label	no hologram label no hologram label no hologram label	no nologram label	positioning of hologram no hologram label no hologram label	
chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria		chinese hologram, no criteria
SFP	SFP	SFP SFP	SFP	SFP	SFP SFP	SFP SFP SFP	SFP SFP	SFP	SFP SFP	SFP
343 BP1014551216	344 BP1014551220	345 BP1014551221 346 BP1014551222	347 BP1014551224	348 BP1014551225	349 BP1014551226 350 BP1014551227		354 BP1014551236 355 BP1014551238 356 BP1014551239 357 BP1014551240	358 BP1014551241 359 BP1014551242	360 BP1014551244 361 BP1014551245	362 BP1014551246

364 BP1014551265	SFP		no hologram label
365 BP1014551266	SFP	Wrong positioning of hologram	
366 BP1014551271	SFP		no hologram label
367 RP1014551272	d	chinese hologram, no criteria	
368 BP1014551273	SFP		no hologram label
369 RP1014551275	ä	chinese hologram, no criteria	
370 BP1014551278	SFP		no hologram label
371 BP1014551279	SFP		no hologram label
372 BP1014551281	SFP		no hologram label
373 BP1014551284	SFP		no hologram label
374 BP1014551285	SFP		no hologram label
		chinese hologram,	
375 BP1014551286	SFP	no criteria	
376 BP1014551287	SFP		no hologram label
		chinese hologram,	
377 BP1014551288	SFP	no criteria	
378 BP1014551291	SFP		no hologram label
379 BP1014551292	SFP		no hologram label
		chinese hologram,	
380 BP1014551293	SFP	no criteria	
	SFP		no hologram label
382 BP1014551347	SFP		no hologram label
		chinese hologram,	
383 BP1014551359	SFP	no criteria	
384 BP1014551365	SFP		no hologram label
385 BP1014551376	SFP		no hologram label
386 BP1014551377	SFP		no hologram label
387 BP1014551382	SFP		no hologram label
388 BP1014551390	SFP		no hologram label
389 BP1014551393	SFP		no hologram label
390 BP1014551395	SFP		no hologram label

			No defect		
		Unclear dots	Unclear dots	Unclear dots	Unclear dots
		no hologram label	no hologram label		
	Wrong positioning of hologram				
chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria right shift down shift down shift down shift down shift down shift right shift, down	shift down shift right shift down shift right shift right shift	shift down shift down shift down shift down shift down shift down shift tight shift left shift right shift right shift	shift right shift down shift right shift, down shift
		Delamination			
SFP	SFP	S S S S S S S S S S S S S S S S S S S	S S G G G G G G G G G G G G G G G G G G	G G G G G G G G G G G G G G G G G G G	S S P P P P P P P P P P P P P P P P P P
391 BP1014551397	392 BP1015900003	393 BP1015900005 394 BP1015900006 395 BP1021820041 396 BP1021820056 397 BP1021820069 399 BP1021820100 400 BP1021820103	401 BP1021820116 402 BP1021820118 403 BP1021820122 404 BP1021820142 405 BP1021820142 406 BP1021820143 407 BP1021820150	408 BP1021820151 409 BP1021820158 410 BP1021820162 411 BP1021820200 413 BP1021820202 414 BP1021820213 415 BP1021820217 416 BP1021820218 417 BP1021820240	419 BP1021820249 420 BP1021820255 421 BP1021820256 422 BP1021820259 423 BP1021820276

No defect	No defect	No defect No defect No defect	No defect
Unclear dots		Unclear dots Unclear dots Unclear dots	Unclear dots Unclear dots
down shift right shift down shift right shift left shift left shift down shift	right shift	down shift	right shift right shift right shift down shift up shift up shift right shift
down right shift left sh down down down down down down shift	rigin	ф	riggi riggi do du qu gi
Physically damaged label Physically damaged label Physically damaged label label			Physically damaged label
Physi label label Physi label label			Physi label
	SFP	# # # # # # # # # # # # # # # # # # #	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
424 BP1021820286 425 BP1021820288 426 BP1021820308 427 BP1021820319 429 BP1021820340 430 BP1021820342 431 BP1021820343 432 BP1021820343 434 BP1021820404 437 BP1021820404 437 BP1021820404 437 BP1021820404 437 BP1021820435 440 BP1021820461 441 BP1021820461 443 BP1021820467 444 BP1021820467	445 BP1030510004 446 BP1030510035	447 BP1030510043 448 BP1030510058 449 BP1030510099 450 BP1030510123 451 BP1030510138	453 BP1030510138 454 BP1030510141 455 BP1030510148 456 BP1030510184 457 BP1030510185 458 BP1030510230 460 BP1030510235

							No defect																						No defect	No defect	No defect						No defect	No defect				No defect
	Unclear dots						_												Unclear dots			Unclear dots							_	_	_						_	_	Unclear dots			_
right shift	down shift	right shift	right shift	right shift, down	shift	down shift		down shift	right shift	right shift		right shift		right shift	right shift	right shift		down shift	down shift	right shift, down	shift	left shift	right shift		right shift	up shift	down shift	up shift				right shift		up shift	right shift	right shift			down shift	right shift, down	shift	
				Physically damaged	label	Delamination					Physically damaged	label	Physically damaged	label			Physically damaged	label						Physically damaged	label							Delamination	Physically damaged	label							Delamination	
SFP	SFP	SFP	SFP		SFP	SFP	SFP	SFP	SFP	SFP		SFP		SFP	SFP	SFP		SFP	SFP		SFP	SFP	SFP		SFP		SFP	SFP	SFP	SFP	SFP	SFP		SFP	SFP							
461 BP1030510238	462 BP1030510254	463 BP1030510256	464 BP1030510258		465 BP1030510263	466 BP1030510305	467 BP1030510316	468 BP1030510372	469 BP1030510379	470 BP1030510386		471 BP1030510407		472 BP1030510415	473 BP1030510416	474 BP1030510437		475 BP1030510446	476 BP1030510458		477 BP1030510467	478 BP1030510473	479 BP1030510476		480 BP1030510478	481 BP1030510503	482 BP1030510504	483 BP1030510505	484 BP1030510507	485 BP1030510510	486 BP1030510519	487 BP1030510521		488 BP1030510528	489 BP1030510538	490 BP1030510543	491 BP1030510568	492 BP1030510582	493 BP1030510607		494 BP1030510615	495 BP1030510617

																																		No defect								No defect
		Unclear dots				Unclear dots											Unclear dots							Unclear dots						Unclear dots	Unclear dots					2+0675001	Olicical dots					
																																no hologram label										
	down shift		right shift	left shift	down shift	right shift	down shift	right shift	right shift	right shift	right shift	right shift	right shift	right shift	right shift, down	shift	down shift	right shift		down shift	right shift	right shift	down shift	down shift	down shift	right shift	right shift	right shift		down shift	down shift		right shift		right shift		down shift	down shift	down shift		right shift	
Physically damaged	label														Physically damaged	label			Physically damaged	label									Delamination							Physically damaged	label			Physically damaged	label	
	SFP		SFP	SFP	SFP		SFP	SFP	SFP	SFP	SFP	SFP	SFP	SFP	SFP	SFP	SFP	SFP	SFP	SFP	SFP	SFP		SFP	SFP	SFP		SFP	SFP													
	496 BP1030510620	497 BP1030510622	498 BP1030510635	499 BP1030510641	500 BP1030510671	501 BP1030510701	502 BP1030510704	503 BP1030510705	504 BP1030510722	505 BP1030510737	506 BP1030510742	507 BP1030510744	508 BP1030510806	509 BP1030510808		510 BP1030510819	511 BP1030510844	512 BP1030510849		513 BP1030510858	514 BP1030510872	515 BP1030510877	516 BP1030510885	517 BP1030510901		519 BP1030510904				523 BP1030511029	524 BP1030511031	525 BP1030511058	526 BP1030511066	527 BP1030511068	528 BP1030511072		529 BP1030511084	530 BP1030511085	531 BP1030511089		532 BP1030511158	533 BP1030511163

												No defect												No defect						No defect				No defect					
Unclear dots																	Unclear dots								1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Unclear dots							Unclear dots						
					chinese hologram,	no criteria																																	
		right shift	down shift	right shift	chir	ou	right shift	right shift	down shift	down shift	left shift		down shift	right shift, down	shift	down shift	down shift	down shift		left shift, down	shift		down shift	down shift		down shift	down shift	down shift		right shift	down shift		up shift	right shift					
														Delamination																									
=	Physically damaged	label Phvsically damaged	label																								Physically damaged	label									Physically damaged	label	
SFP		SFP	SFP	SFP		SFP	SFP	SFP	SFP	SFP	SFP	SFP	SFP	SFP	SFP	SFP	SFP	SFP		SFP	SFP	SFP	SFP	SFP		SFP		SFP		SFP	SFP								
534 BP1030511172		535 BP1030511175	536 BP1030511190	537 BP1030511198		538 DW08033267	539 EX1017030044	540 EX1017030065	541 EX1017030094	542 EX1017030165	543 EX1017030166	544 EX1017030179	545 EX1017030204	546 EX1017030210	547 EX1017030495	548 EX1017030505	549 EX1017030509	550 EX1017030530		551 EX1017030532	552 EX1017030601	553 EX1017030605	554 EX1017030610	555 EX1017030629		556 EX1017030650		557 EX1017030655	558 EX1017030677	559 EX1017030755	560 EX1017030768	561 EX1017030771	562 EX1017030776	563 EX1017030800	564 EX1017030881	565 EX1017030884		566 EX1017030886	567 EX1017030893

į	Physically damaged	left shift, down			
	label	shift			
		down shift			
	Physically damaged	left shift, up			
	label	shift			
		left shift			
		left shift			
					No defect
		up shift			
		right shift		<b>Unclear dots</b>	
		down shift		Unclear dots	
		left shift			
	Physically damaged				
	label	down shift			
		down shift			
		right shift			
		down shift			
		right shift			
		up shift			
		left shift		Unclear dots	
			no hologram label		
		left shift		Unclear dots	
		down shift			
					No defect
		left shift			
		down shift, left			
		shift			
		up shift			
					No defect
		left shift		Unclear dots	
		up shift			
		down shift			
					No defect
					No defect
		down shift		Unclear dots	
	Physically damaged				
	label	down shift			
		left shift			
		left shift			
		down shift		Unclear dots	
		up shift			
		left shift		Unclear dots	
		down shift			

606 EX1020050021	SFP		down shift	Unclear dots
607 EX1020050036	SFP		down shift	Unclear dots
		Physically damaged		
608 EX1020050048	SFP	label	down shift	
609 EX1020050049	SFP		down shift	
610 EX1020050050	SFP		down shift	
		Physically damaged		
611 EX1020050072	SFP	label	down shift	
612 EX1020050078	SFP		down shift	
613 EX1020050106	SFP		down shift	
614 EX1020050119	SFP		down shift	Unclear dots
615 EX1020050125	SFP		down shift	Unclear dots
616 EX1020050133	SFP	Delamination	down shift	
			right shift, down	
617 EX1020050138	SFP		shift	
			right shift, down	
618 EX1020050142	SFP		shift	
619 EX1020050144	SFP		down shift	
620 EX1020050155	SFP		right shift	
621 EX1020050158	SFP		right shift	
622 EX1021060024	SFP			Unclear dots
		Physically damaged		
623 EX1021060025	SFP	label	down shift	
624 EX1021060028	SFP		down shift	
625 EX1021060038	SFP			No defect
626 EX1021060041	SFP		down shift	
627 EX1021060053	SFP		down shift	
628 EX1021060125	SFP		down shift	
629 EX1021060126	SFP	Delamination	up shift	
		Physically damaged	right shift, down	
630 EX1021060142	SFP	label	shift	
631 EX1021060147	SFP		down shift	
632 EX1021060149	SFP		down shift	
			right shift, down	
633 EX1021060401	SFP		shift	
634 EX1021060407	SFP		down shift	
			right shift, down	
635 EX1021060417	SFP		shift	
636 EX1021060430	SFP	Delamination	right shift	
		Physically damaged		
637 EX1021060436	SFP	label	right shift	
638 EX1021060437	SFP		right shift	
639 EX1021060577	SFP		down shift	

			No defect			No defect						No defect							No defect			No defect							No defect							No defect	No defect				
								Unclear dots					Unclear dots			Unclear dots										Unclear dots	2000	Officieal dots							Unclear dots			Unclear dots			
t, down		Ħ		Ħ	<b>.</b>			ب.		t.	<b>.</b>			Ħ	<b>.</b>	<b>.</b>		Ħ			<b>.</b>		Ħ		٠.	<b>.</b>	t, up			<b>.</b>	4		ب	<b>.</b>							
right shift, down	shift	down shift		down shift	right shift		up shift	right shift		right shift	right shift		left shift	down shift	right shift	right shift		down shift			right shift		down shift		right shift	right shift	right shift, up	shift		right shift	right shift		right shift	right shift	left shift				up shift		up shift
		Delamination																																							
		_							Physically damaged								Physically damaged			Physically damaged				Physically damaged								Physically damaged								Physically damaged	
									Physica	label							Physica	label		Physica	label			Physica	label							Physica	label							Physica	label
	SFP		SFP		SFP	SFP		SFP	SFP	SFP		SFP	SFP		SFP	SFP	SFP	SFP		SFP		SFP																			
	640 EX1021060580	641 EX1021060581	642 EX1021060584	643 EX1021060596	644 EX1030010006	645 EX1030010007	646 EX1030010009	647 EX1030010030		648 EX1030010036	649 EX1030010042	650 EX1030010201	651 EX1030010207	652 EX1030010208	653 EX1030010209	654 EX1030010238		655 EX1030010288	656 EX1030010380		657 EX1030010389	658 EX1030010406	659 EX1030010445		660 EX1030010454	661 EX1030010502		662 EX1030010654	663 EX1030010660	664 EX1030010665	665 EX1030010666		666 EX1030010694	667 EX1030010714	668 EX1030010809	669 EX1030010826	670 EX1030010843	671 EX1030010849	672 EX1030010850		673 EX1030010851

		No defect			No defect						No defect												No defect		No defect									No defect						No defect
						Unclear dots								Unclear dots																			Unclear dots		7000	Olicieal dots	Unclear dots			
																																						no hologram label		
																											left shift													
	right shift		right shift, down	shift			right shift	right shift	right shift, down	shift			down shift		right shift, up	shift		right shift	right shift	right shift, down	shift	down shift		right shift		right shift	down shift	down shift	right shift		down shift	down shift	right shift			right shift	up shift		right shift	
Physically damaged	label											Physically damaged	label				Physically damaged	label												Physically damaged	label				Physically damaged	label				
	SFP	SFP		SFP	SFP	SFP	SFP	SFP		SFP	SFP		SFP	SFP		SFP		SFP	SFP		SFP	SFP	SFP	SFP	SFP	SFP	SFP	SFP	SFP		SFP	SFP	SFP	SFP		SFP	SFP	SFP	SFP	SFP
	674 EX1030010870	675 EX1030010987		676 EX1030010989	677 EX1030010994	678 EX1030010995	679 EX1030011002	680 EX1030011094		681 EX1030011095	682 EX1030011146		683 EX1030011218	684 EX1030011223		685 EX1030011242		686 EX1030011274	687 EX1030011285		688 EX1030011363	689 EX1030011394	690 EX1030011401	691 EX1030011403	692 EX1030011414	693 EX1030011420		695 EX1030011453	696 EX1030011483		697 EX1030011560	698 EX1030011624	699 EX1030011644	700 EX1030011650		701 EX1030011713	702 EX1030011809	703 EX1030011818	704 EX1030011829	705 EX1030011831

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													No defect																									
	No hologram label	No hologram label																																				
chinese hologram, no criteria			down shift	Chinese Hologram,	right shift, down	shift	down shift	right shift, down	shift		right shift	right shift		right shift, down	shift	right shift, down	shift	right shift	down shift	down shift	down shift		down shift	right shift	down shift	right shift, down	shift	right shift	down shift	down shift	down shift	right shift, down	shift	right shift, down	shift	right shift, down	shift	
										Physically damaged	label									Delamination		Physically damaged	label								Delamination							
SFP	SFP	SFP	XFP	XED	-	XFP	XFP		XFP		XFP	XFP	XFP		XFP		XFP	XFP	XFP	XFP	XFP		XFP	XFP	XFP		XFP	XFP	XFP	XFP	XFP		XFP		XFP		XFP	
706 G0047468	707 H11F323	708 H11F613	709 UGH04P4	710 HGH04HV		711 UGH04VK	712 UGJ05DU		713 UGJ05E0		714 UGJ05EB	715 UGJ05FB	716 UGJ05MA		717 UGK06H9		718 UGK07GX	719 UGK07L7	720 UGK07LT	721 UGK07MJ	722 UGK08B7		723 UGK08BD	724 UGL01L6	725 UGL01LA		726 UGL050M	727 UGL050U	728 UGL051E	729 UGL05MF	730 UGL05P1		731 UGL05PE		732 UGL05PJ		733 UGL05RN	

No defect	No defect									No defect	
										no hologram label	
S.W.O	uwo	own	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria	chinese hologram, no criteria			chinese hologram, no criteria eff	;	
riaht chift down	shift down shift right shift, down	right shift right shift, down shift down shift					right shift	down shift down shift right shift	down shift	shift	right shift down shift down shift down shift left shift
								Delamination			
						Physically damaged	label Physically damaged	label		Physically damaged	label
XFP	X X X X Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y	X X X YFP	XFP	XFP	XFP	XFP	XFP	XFP XFP XFP	XFP XFP	XFP XFP XFP	X X X X X X X X X X X X X X X X X X X
735 UGL05S0	736 UGL07DU 737 UGL07F2 738 UGL07FS	740 UGL07TS 741 UGL080J 742 UGL080S	743 UGQ0A2B	744 UH207T4	745 UH208ZP	746 UH30818	747 UH8004U	748 UH8004Y 749 UH8006Z 750 UH8007E	751 UHA03LM 752 UHA03LQ	753 UHA06PJ 754 UHA06PP 755 UHA07CM	756 UHA07D0 757 UHA07D3 758 UHA07DF 759 UHA07EZ

down shift right shift down shift food was shift down shift left shift down shift left shift down shift left shift down shift left shift chinese hologram, no criteria
no hologram  own  chinese hologram,  no criteria  chinese hologram,  no criteria  chinese hologram,  no criteria  chinese hologram,  no criteria
left  no hologram label  chinese hologram,  no criteria  chinese hologram,  no criteria  chinese hologram,  no criteria  chinese hologram,  no criteria
left  no hologram label  chinese hologram,  no criteria  chinese hologram,  no criteria  chinese hologram,  no criteria  chinese hologram,  no criteria
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## **EXHIBIT 6**







